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FORREST GUNNISON
GUNNISON, MCKAY & HODGSON, LLP
1900 GARDEN ROAD
SUITE 220
MONTEREY, CA 93940

EXAMINER

KANG, INSUN

ART UNIT PAPER NUMBER

2124

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,440

Applicant(s)

WEEK, JON J.

Examiner

Insun Kang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 9/13/2004.
2. As per applicant's request, claims 1- 52 have been amended. Claims 1-52 are pending in the application.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 18- 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 18-34 are non-statutory because they are directed to a "tool" without recitation of a computer or a computer-readable medium embodying the method in order to produce a "useful, concrete and tangible result." The claims merely recite a "tool" that is disembodied arrangement so as to be called a "computer program" or compilation of facts, information, or data *per se*, without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer ("acts") or computer readable medium so as to enable the computer to perform the claimed features of the "tool" which is a mere program as recited. Thus the claims represent non-functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

Note: The previous rejection to the claims 1-17 has been withdrawn due to the

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amendment to the claims. However, in response to the applicant's statement regarding the recitation in the preamble, the examiner points out that causing an action or intended action is different from actually performing an action. The claim 1 merely recited "a method for building a group of computer programs...comprising." Thinking about technological arts is not the same as being in the technological arts. Displaying, designating a capable computer for building a group of computer programs does not necessarily mean that the building step is actually performed. Therefore, building a group of computer programs was considered to be only an intended action and accordingly non-statutory.

Claim Rejections - 35 USC § 112

5. The rejections to claims 6, 7, 23, 24, 40, and 41 have been withdrawn due to the amendment to the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Rogue Wave ("Rogue Wave software Online Documentation," 1999, Rogue Wave Software, Inc.).

Per claim 1:

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Rogue Wave discloses:

- displaying a list of at least one group of computer programs so as to allow a user to select a group of computer programs to be built, each of said at least one group of computer programs having a set of specific environmental requirements in which said at least one group of computer programs is to be compiled and executed (see Figure in 2.4.2.2; "Select the library or examples to be built...those environments for which configurations have been defined," section 2.4.2.2)
- displaying a list of a plurality of computers, each computer of said plurality of computers having at least one environmental characteristic ("Select an environment...the Environment selection box shows only those environments for which configurations have been defined...You can gain access to all supported environments by clicking the Show All Environments checkbox," section 2.4.2.2)
- receiving a user's selection of a group of computer programs from said list of said at least one group of computer programs ("Usable configurations are preceded by a green check mark, non-supported configurations by a red X, if no suitable configuration is displayed...A shell window shows the progress of the build," section 2.4.2.2)
- determining each computer, in said plurality of computers, capable of building the selected group of computer programs based on said at least one environmental characteristic ("Usable configurations are preceded

by a green check mark, non-supported configurations by a red X, if no suitable configuration is displayed...A shell window shows the progress of the build," section 2.4.2.2)

- indicating each said capable computer on said list of the plurality of computers and designating a capable computer in response to the user's selection of a computer from the capable computers on said list of the plurality of computers ("Usable configurations are preceded by a green check mark, non-supported configurations by a red X, if no suitable configuration is displayed...A shell window shows the progress of the build," section 2.4.2.2)

as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses displaying a list of user-selectable options ("If you wish, select advanced options," section 2.4.2.2) as claimed.

Per claim 3:

The rejection of claim 2 is incorporated, and further, Rogue Wave discloses determining available build options for the selected computer; and indicating said available build options on said list of user-selectable options (see Advanced Build options dialog in section 2.4.2.2) as claimed.

Per claim 4:

The rejection of claim 2 is incorporated, and further, Rogue Wave discloses executing, in response to a user-selectable option being selected, a build process for the selected group of computer programs using the selected computer (see i.e. Advanced Build options dialog in section 2.4.2.2) as claimed.

Per claim 5:

The rejection of claim 4 is incorporated, and further, Rogue Wave discloses outputting a result of said executing the build process (see i.e. "build record," in Advanced Build options dialog, section 2.4.2.2) as claimed.

Per claim 6:

The rejection of claim 2 is incorporated, and further, Rogue Wave discloses building, testing, checking a group of computer programs and removing existing computer programs and files from a specific location assigned to a selected group; and logging a result of executing a selected build option as claimed (see i.e. "build record," in Advanced Build options dialog, section 2.4.2.2; section 2.4) as claimed.

Per claim 7:

The rejection of claim 2 is incorporated, and further, Rogue Wave discloses determining available processes for a selected user-selectable option, and displaying a list of said available processes (see i.e. Advanced Build options dialog in section 2.4.2.2) as claimed.

Per claim 8:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses obtaining said at least one environmental characteristic of said each computer, and comparing said at least one environmental characteristic with said set of specific environmental requirements of the selected group of computer programs (i.e. "Select an environment... the Environment selection box shows only those environments for which configurations have been defined... You can gain access to all supported environments by clicking the Show All Environments checkbox," section 2.4.2.2) as claimed

Per claim 9:

The rejection of claim 8 is incorporated, and further, Rogue Wave discloses maintaining a file containing environmental characteristics of the plurality of computers; and reading said at least one environmental characteristic of said each computer from said file (i.e. section 2.4.2.2) as claimed

Per claim 10:

The rejection of claim 9 is incorporated, and further Rogue Wave discloses updating said environmental characteristics of the plurality of computers contained in said file (i.e. see the environment profile in section 2.4.1) as claimed.

Per claim 11:

The rejection of claim 8 is incorporated, and further, Rogue Wave discloses

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said at least one environmental characteristic is obtained by making a query to said plurality of computers (i.e. see the environment profile in section 2.4.1) as claimed.

Per claim 12:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses said at least one environmental characteristic of the computer includes at least one of a number of CPUS within the computer, a CPU architecture, a bus width, a version and type of an operating system, and an average load of the computer (i.e. see the environment profile in section 2.4.1) as claimed.

Per claim 13:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses -highlighting each said capable computer on said list of plurality of the computers (i.e. "Usable configurations are preceded by a green check mark, non-supported configurations by a red X, if no suitable configuration is displayed...A shell window shows the progress of the build," section 2.4.2.2) as claimed.

Per claim 14:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses said set of specific environmental requirements includes at least one of a number of CPUS, CPU architecture, a bus width, and a type and version of an operating system (i.e. see the environment profile in section 2.4.1) as claimed.

Per claim 15:

The rejection of claim 1 is incorporated, and further, Rogue Wave discloses

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said at least one group of computer programs is at least one library (i.e. see Figure in 2.4.2.2; "Select the library or examples to be built... those environments for which configurations have been defined," section 2.4.2.2)

Per claim 16:

The rejection of claim 15 is incorporated, and further, Rogue Wave discloses said set of specific environmental requirements includes at least one of a number of CPUS, CPU architecture, a bus width, a type and version of an operating system, a method of compiling, and a link type of a library (i.e. see the environment profile in section 2.4.1) as claimed.

Per claim 17:

The rejection of claim 16 is incorporated, and further, Rogue Wave discloses said displaying a list of said at least one group of computer programs includes showing at least one of said specific environmental requirements for each library (i.e. see the environment profile and figure in section 2.4.1) as claimed.

Per claims 18-34, they are the tool versions of claims 1-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-17 above.

Per claims 35-51, they are the apparatus versions of claims 1-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-17 above.

Per claim 52, it is the program storage device version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US Pub No. 2003/0182650) in view of Sun WorkShop TeamWare: User's Guide (Sun Microsystems, Inc., 1996) hereinafter referred to as "TeamWare."

Per claim 1:

Smith discloses:

-displaying a list of at least one group of computer programs so as to allow a user to select a group of computer programs to be built, each of said at least one group of computer programs having a set of specific environmental requirements in which said at least one group of computer programs is to be compiled and executed ("library selecting logic responsive to said library selector for selecting, from among a plurality of libraries of machine code entities, a selected library of machine code entities having a best level of execution environment requirements compatible with said limiting level of execution environment requirements indicated by said library selector," pg 1, 0011; "A software development toolkit (SDT) such as the ARM Developer Suite (ADS) presents its users

with many build options,” page 7 lines 16-20; “software development system...to model the compatibility and desirability in the target execution environment of various build option parameters selected by a user....This library selector may be used to select a particular library of machine code entities compatible with these execution environment requirements whilst providing the most desirable machine code entities to exploit the capabilities of the target data processing system,” abstract; page 1, 0004)

- receiving a user's selection of a group of computer programs from said list of said at least one group of computer programs (“The different build options that may be specified by a user of the software development tools...,”page 1, 0018; “software development system...to model the compatibility and desirability in the target execution environment of various build option parameters selected by a user....This library selector may be used to select a particular library of machine code entities compatible with these execution environment requirements whilst providing the most desirable machine code entities to exploit the capabilities of the target data processing system,” abstract; page 1, 0004)

Smith does not explicitly teach displaying a list of a plurality of computers, each computer of said plurality of computers having at least one environmental characteristic. However, TeamWare teaches that it was known in the art of software component-based development and configuration, at the time applicant's invention was made, to visually indicate each different computers to the user and to distribute “builds over several hosts to build programs concurrently over a number of workstations or multiple CPUs (section 20: Using DistributedMake)” such as those disclosed in TeamWare. It would have been

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obvious for one having ordinary skill in the art of computer software component-based development and configuration to modify Smith's disclosed system to incorporate the teachings of TeamWare. The modification would be obvious because one having ordinary skill in the art would be motivated to ease the build process in a software development system as suggested by TeamWare ("A Dmake user on a Dmake host can specify the machines they want to use as build servers and the number of jobs they want to distribute to each build server...from GUI (Building)," section 20: Using DistributedMake; "choose a TeamWare target from the list," section 19, Modifying a TeamWare Target)."

TeamWare further discloses determining each computer, in said plurality of computers, capable of building the selected group of computer programs based on said at least one environmental characteristic (Dmake parses your makefiles and...[d]etermines which targets can be built concurrently...[d]istributes the build of those targets over a number of hosts designated by you," section 20: Using DistributedMake) indicating each said capable computer on said list of the plurality of computers and designating a capable computer in response to the user's selection of a computer from the capable computers on said list of the plurality of computers (Dmake parses your makefiles and...[d]etermines which targets can be built concurrently...[d]istributes the build of those targets over a number of hosts designated by you," section 20: Using DistributedMake) as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Smith discloses displaying a list of user-selectable options ("different build options that may be specified by a user," page 1, 0018; "library selector," page 1, 000; page 7 lines 16-20) as claimed.

Per claim 3:

The rejection of claim 2 is incorporated, and further, Smith discloses determining available build options for the selected computer; and indicating said available build options on said list of user-selectable options ("a selected library of machine code entities having a best level of execution environment requirements compatible with said limiting level of execution environment requirements indicated by said library selector," page 1, 0011) as claimed.

Per claim 4:

The rejection of claim 2 is incorporated, and further, Smith discloses executing, in response to a user-selectable option being selected, a build process for the selected group of computer programs using the selected computer ("perform a method of generating a group of machine code entities for execution upon a target data processing apparatus from a group of source code entities, each source code entity having at least one build option parameter," page 2, 0026) as claimed.

Per claim 5:

The rejection of claim 4 is incorporated, and further, Smith discloses outputting a result of said executing the build process ("IDE or "make" system acting as the user's agent,"

page 3, 0050; page 8, lines 1-17; "ARM developer Suite (ADS)," page 7 lines 16-20) as claimed.

Per claim 6:

The rejection of claim 2 is incorporated, and further, Smith discloses building, testing, checking a group of computer programs and removing existing computer programs and files from a specific location assigned to a selected group; and logging a result of executing a selected build option ("IDE or "make" system acting as the user's agent," page 3, 0050; page 8, lines 1-17; "ARM developer Suite (ADS)," page 7 lines 16-20) as claimed.

Per claim 7:

The rejection of claim 2 is incorporated, and further, Smith discloses determining available processes for a selected user-selectable option, and displaying a list of said available processes page 2, 0026) as claimed.

Per claim 8:

The rejection of claim 1 is incorporated, and further, TeamWare discloses obtaining said at least one environmental characteristic of said each computer, and comparing said at least one environmental characteristic with said set of specific environmental requirements of the selected group of computer programs (see section 20: The Dmake Host) as claimed.

Per claim 9:

The rejection of claim 8 is incorporated, and further, TeamWare discloses maintaining a file containing environmental characteristics of the plurality of computers; and reading said at least one environmental characteristic of said each computer from said file (see section 20: The Dmake Host) as claimed.

Per claim 10:

The rejection of claim 9 is incorporated, and further TeamWare discloses updating said environmental characteristics of the plurality of computers contained in said file (see section 20: The Dmake Host) as claimed.

Per claim 11:

The rejection of claim 8 is incorporated, and further, TeamWare discloses said at least one environmental characteristic is obtained by making a query to said plurality of computers (see section 20: The Dmake Host) as claimed.

Per claim 12:

The rejection of claim 1 is incorporated, and further, TeamWare discloses said at least one environmental characteristic of the computer includes at least one of a number of CPUS within the computer, a CPU architecture, a bus width, a version and

type of an operating system, and an average load of the computer (see section 20: The Dmake Host) as claimed.

Per claim 13:

The rejection of claim 1 is incorporated, and further, TeamWare discloses Highlighting each said capable computer on said list of plurality of the computers section 20: Using DistributedMake; "choose a TeamWare target from the list," section 19, Modifying a TeamWare Target)" as claimed.

Per claim 14:

The rejection of claim 1 is incorporated, and further, TeamWare discloses said set of specific environmental requirements includes at least one of a number of CPUS, CPU architecture, a bus width, and a type and version of an operating system (see section 20: The Dmake Host) as claimed.

Per claim 15:

The rejection of claim 1 is incorporated, and further, Smith discloses said at least one group of computer programs is at least one library (page 1, 0011) as claimed.

Per claim 16:

The rejection of claim 15 is incorporated, and further, Smith discloses said set of specific environmental requirements includes at least one of a number of CPUS, CPU architecture, a bus width, a type and version of an operating system, a

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method of compiling, and a link type of a library (page 7, lines 16-25; page 1, 0018) as claimed.

Per claim 17:

The rejection of claim 16 is incorporated, and further, Smith discloses said displaying a list of said at least one group of computer programs includes showing at least one of said specific environmental requirements for each library("a selected library of machine code entities having a best level of execution environment requirements compatible with said limiting level of execution environment requirements indicated by said library selector," page 1, 0011 and 0019) as claimed.

Per claims 18-34, they are the tool versions of claims 1-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-17 above.

Per claims 35-51, they are the apparatus versions of claims 1-17, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-17 above.

Per claim 52, it is the program storage device version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

Response to Amendment

10. The amendment to the claims filed on 9/13/2004 does not comply with the requirements of 37 CFR 1.121(c) because: In claim 18 of the amendment, the status of the claim is not indicated after the claim number by using "Currently Amended" identifier in a parenthetical expression.

Response to Arguments

11. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Therefore, this action is made non-final.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent application publication 2002/0095396 to Frerking et al. discloses a builder tool and interface for a multiple, concurrent, independent virtual machine environment wherein the tool eases the build process for a multiple virtual machine system via graphical user interface assisting a user by visually indicating the different virtual machines and by determining the project-wide and virtual machine specific parameters to be used in creating a build.

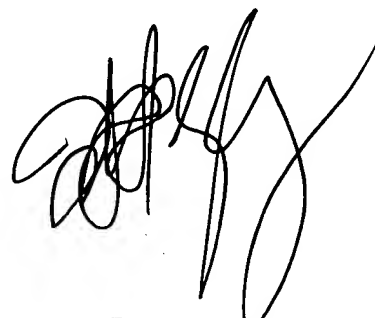
The U.S. Patent application publication 2003/0182650 applied to the claim rejections above is considered to be a proper reference since this application is a continuation-in-part of application No. 09/503,485 filed on 2/14/2000. These two applications are nearly identical except minor wording difference in the abstracts and several added claims in the continuation-in-part application. Therefore, the applied art is a proper reference.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I. Kang
Patent Examiner
2124



TODD INGBERG
PRIMARY EXAMINER